Chat Amend

Final signed 9/1/95

RECORD OF DECISION
based on the
FINAL ENVIRONMENTAL IMPACT STATEMENT
for the
BRIAN HEAD RECOVERY PROJECT

Cedar City Ranger District
USDA Forest Service
Dixie National Forest
Iron County, Utah

I. INTRODUCTION

A. Proposed Action

The Forest Service proposes timber harvest to reduce the impacts of the spruce bark beetle in the Brian Head area of the Cedar City Ranger District, Dixie National Forest, Iron County, Utah. The project area is located 11 miles east of Cedar City, Utah. Implementation of harvest activities would be scheduled to begin as early as the fall of 1995 in the Brian Head Ski Resort area. Areas outside of the Brian Head Ski area would be scheduled to begin in the summer of 1995. The Proposed Action would salvage harvest dead and dying Englemann spruce, and remove selected green spruce using sanitation harvest on 878 acres. A combination of helicopter and tractor yarding systems would be used to remove the trees. Approximately 1.2 miles of road would be constructed, 0.25 miles of Forest Road 304 would be realligned, 1.7 miles would be reconstructed and 4.1 miles of existing road would require prehaul maintenance. Followup treatments including salvage and/or on-site destruction would continue for 1-5 years following the initial treatment. Fuels reduction work is scheduled to reduce wildfire risk and minimize impacts in visually sensitive areas. Reforestation activities are scheduled for 95 acres in areas not expected to meet full stocking levels. Application of insecticide is scheduled in the Upper Bear Flat area and within the Brian Head Ski Resort area to protect selected spruce trees from insect damage. These insecticide applications could begin in the fall of 1995. A Forest Plan Amendment to replace the yellow breasted chat as a management indicator species with the desired riparian habitat condition is included in this decision.

The purpose of the Proposed Action is to initiate actions that would reduce the susceptibility of the project area, and risk to adjacent areas (by removing a resident bark beetle population), to bark beetle infestations, and to initiate actions that would bring the project area toward the desired future condition.

Information provided by Cedar City Ranger District and Forest Pest Management personnel have informed me that spruce bark beetle populations have increased substantially during the summer of 1995. Field trips and data collected indicate bark beetle populations have increased in several stands within the project area and on adjacent private lands. Within the Brian Head Ski Resort area, several forested leave strips now have large populations of bark beetles. Prior to this season, there was only a small population of beetles in scattered pockets of trees within the ski area.

II. THE DECISION

A. Selected Alternative

INTRODUCTION
As the Forest Supervisor, I am the Responsible Official (Deciding Officer) with the delegated authority for this decision. I have decided to implement the Proposed Action as described in the Final Environmental Impact

Statement for the Brian Head Recovery Project (FEIS). The specific management actions which will be implemented are fully described in the FEIS in Chapter II, pages 18-25. Based on recent information provided by Cedar City Ranger District staff, I have decided to make the following changes to the Proposed Action which include:

1. Use ground based logging equipment within the Brian Head Ski Resort area to remove trees rather than helicopter logging. This modification will treat 153 acres in stands 109-29(104 acres), 109-32(16 acres), 109-28(10 acres) and stand 109-35(23 acres) using ground based equipment. Some skid trails will be constructed to remove logs from the areas. No new road construction or reconstruction will be needed to complete the harvest. Existing roads and trails within the permit area will be used to remove the logs. Harvest activities will begin immediately to remove as many trees as possible, using a combination of salvage and sanitation treatments, prior to the onset of the 1995-1996 ski season. Effects of this change are discussed in the FEIS for the Brian Head Recovery Project.

2. Increase the acres for spraying with a carbyral based insecticide from 20 to 80 within the Brian Head Ski Resort area. This will help protect the remaining trees from mortality from the spruce bark beetle in this high use recreation area. Effects of this change are discussed in the FEIS for the Brian Head Recovery Project.

Follow-up harvest would be conducted after the initial salvage and sanitation harvest to remove additional trees infested by bark beetle. It is anticipated follow-up treatments would be conducted for 1-5 years after the initial entry. Follow-up treatments include commercial salvage and on-site destruction.

In order for follow-up actions effects to be assessed, three underlying assumptions were used by the interdisciplinary team during their analysis of resource effects. These assumptions were as follows:

1. That any stand projected to have sustained sufficient bark beetle mortality to where the canopy closure was already below 20%, would only allow salvage of dead and dying trees to a minimum live and dead basal area of 55 square feet of basal area per acre. Sufficient numbers of dead and live trees would be sustained within a stand to comprise an average of 55 square feet per acre.

2. That any stand projected by analysis to have greater than 20% canopy closure but less than 30% canopy closure following initial treatments and follow-up treatments (refer to FVS model projections in the project file), would not fall below 20% canopy closure. In terms of stand stocking to allow tracking of this parameter in the field, 70 basal area was assumed to equate to 20% canopy closure, on the average (refer to project file documentation supporting this assumption).

3. That any stand projected by analysis to have greater than 30% canopy closure following initial treatments and follow-up treatments (refer to FVS model projects in the project file), would not fall below 30% canopy closure. In terms of stand stocking to allow tracking of this parameter in the field, 100 basal area was assumed to equate to 30% canopy closure, on the average (refer to project file documentation supporting this assumption).

It is my decision to allow follow-up actions to proceed for up to 5 years following the initial entry scheduled for completion in 1996/97, as long as the degree of mortality/harvest does not exceed these three underlying assumptions. If any stand falls below projected stocking levels, then I will require that this be treated as new information as defined under Forest Service Handbook 1909.15, sections 18.1 and 18.2. Under this direction, the interdisciplinary team will review and consider this new information within the context of the overall project decision documented in the Record of Decision. Following their review, the interdisciplinary team leader will make recommendations to me on what options exist to treat these area(s) and what the resulting resour effects will be. I will then review this interdisciplinary input and determine if a correction, supplement or revisi to the existing environmental document and decision are required.

If I determine that a correction, supplement or revision are necessary I will follow the appropriate procedures for completion, as defined in 1909.15, sections 18.1 and 18.2. If I determine that a correction, supplement or revision is not necessary, I will document this to the appropriate project file and allow for the continued implementation of this project.

The Proposed Action relies on helicopter logging for removal of selected trees on 316 acres of the 878 treatment acres. If a helicopter is not available to complete this yarding, I have decided to implement Alternative C, which is also fully described in the FEIS in Chapter II, pages 39-43. Recognizing the Proposed Action relies on helicopter yarding to remove logs, and the fact recent helicopter timber sales have not sold, I believe, Alternative C would best meet the goals and objectives defined for this project area, if helicopter yarding is not an available option. If timber sales designed to implement the Proposed Action are not sold within a reasonable amount of time, I will implement Alternative C, with the following changes:

1. Use ground based logging equipment within the Brian Head Ski Resort area and one stand immediately adjacent to the permit area, to remove trees rather than helicopter logging. This modification will treat an additional 153 acres in stands 109-29(104 acres), 109-32(6 acres), 109-28(10 acres) and stand 109-35(23 acres) using ground based equipment. Some skid trails will be constructed to remove logs from the areas. An additional 1.8 miles of road will require prehaul maintenance. Existing roads and trails within the permit area will be used to remove the logs. Harvest activities will proceed immediately to remove as many trees as possible, using a combination of salvage and sanitation treatments, prior to the onset of the 1995-1996 ski season. Refer to the Description of Alternatives section in Chapter 2 on pages 39-43 of the FEIS for a complete discussion of Alternative C. Effects of this change are discussed in the FEIS for the Brian Head Recovery Project.

2. Add 1.8 miles of prehaul maintenance for the existing roads in the Brian Head ski resort to facilitate removal of logs. This additional road mileage increases the prehaul maintenance miles from 1.6 miles to 3.4 miles.

3. Increase the acres for spraying with a carbyral based insecticide from 20 to 80 within the Brian Head permit area. This will help protect the remaining trees from mortality from the spruce bark beetle in this high use recreation area. Effects of this change are discussed in the FEIS for the Brian Head Recovery Project.

Followup treatments for Alternative C will be the same as described for the Proposed Action.

B. Mitigation

In addition to the standards and guidelines in the DNF-LRMP, project specific mitigation measures described in the FEIS, Chapter II, pages 6-17, will be implemented as part of this decision. Most mitigation requirements will be implemented as part of the Timber Sale Contract. The Timber Sale Contract (including sale area map) will be reviewed by ID team specialists, prior to implementation. The remaining mitigation measures will be completed during project lay-out or as part of post-sale plans.

Mitigation measures designed for the Brian Head Recovery Project were developed for a wide variety of resource reasons, including those relating to: soil and water, vegetation, wildlife, recreation and visuals, fuels management, and haul route.

As stated previously, the Brian Head area is a very important recreation area. Extensive mitigation has been designed to eliminate and reduce the effects to resource concerns in the Brian Head area. Listed below is a synopsis of some of the recreation related mitigation measures that have been of greatest interest during the analysis and public involvement process which I believe should be highlighted in this decision.

1. Mitigation including treatment modifications adjacent to trails were designed to reduce visual impacts near trails.

2. Post-harvest cleanup would be completed within 2 weeks of harvest operations within the Brian Head Resort Permit area.

3. Harvest activities would be restricted on weekends and during scheduled special events.

4. If an operator elects to haul logs on U-143, down Parowan Canyon, the amount of logging truck traffic would be restricted to 400 truck loads per month, which averages to 2 loaded trucks per hour.

I believe implementation of all the mitigation described for this project will reduce the impacts to recreationists and business within the Brian Head area, while reducing the impacts of the spruce bark beetle.

C. Monitoring and Evaluation

Monitoring of management activities associated with the Proposed Action or Alternative C will be implemented as described in Appendix 14 of the FEIS. The Town of Brian Head will be notified on a weekly basis to inform them where cutting, yarding and hauling will be taking place and the estimated time of completion. Monitoring of the harvest activities will be done on a daily basis by the Sale Administrator or Sale Inspectors.

D. Forest Plan Amendment

I have decided to proceed with the Forest Plan Amendment analyzed as part of this environmental impact statement. This amendment will replace the yellow-breasted chat as a Management Indicator Species wit the desired riparian habitat condition. Original population numbers referenced in the Dixie National Fores LRMP were based on assumptions and not field data collected at the forest level. Based on monitoring data collected at the forest level, it has been determined that there is an insufficient yellow-breasted chat population to accurately measure healthy riparian ecosystems. Using the desired riparian habitat condition will be a better indicator of riparian ecosystem health which would sustain viable populations of riparian associated species. The desired riparian habitat condition would provide for structural, age and species diversity for a variety of riparian conditions.

I have included the specific documentation of changes to the Forest Plan in Chapter 8 of the FEIS for the Brian Head Recovery Project.

III. REASONS FOR THE DECISION

I believe the Proposed Action, with the included mitigation measures, provides the best balance between the various social and resource needs within the Brian Head Recovery Project area. I believe the Proposed Action will best meet the purpose and need described for the Brian Head Recovery Project and move the area towards the desired future condition. This decision is driven by the need to reduce losses from the spruce bark beetle and reduce future impacts that may result if the spruce bark beetle populations remain unchecked. Maintaining as much forest cover as possible in the treatment areas, for a variety of resource reasons, is important. Most users of the National Forest lands in the Brian Head area consider these spruce forests important for the aesthetic values they provide. Certain wildlife species rely on spruce/fir forests for some or all of there habitat needs.

The spruce bark beetle is beginning to alter spruce/fir forests in the Brian Head area. Immediate action will reduce the impacts from spruce bark beetle on the spruce/fir stands in the Brian Head Recovery Project are There will be short term impacts to recreationists and businesses within the Brian Head area. I believ mitigation designed to reduce or eliminate these impacts will at least meet the minimum needs and expectations of the majority of individuals who use this area for varying reasons.

However, in selecting the Proposed Action for implementation, I must consider the likelyhood of helicopter logging. The Dixie National Forest has not been successful recently, selling helicopter sales. Helicopter logging was selected for yarding on 306 acres of the 878 acres scheduled for treatment. I believe helicopter yarding provides the best opportunity to meet the variety of resource values displayed in the environmental analysis. Its primary benefit is due to the need for a less extensive road and skid trail network within areas to be treated. This reduction in road and skid trail miles has direct benefits to recreation, wildlife, soil and water values as described in the FEIS for this project.

However, if a helicopter is not available to complete logging operations in a reasonable period of time, then I will implement Alternative C. Alternative C treats less acres than the Proposed Action, but will still meet many of the objectives defined under the purpose and need for this project and provide for progression toward the project area desired future condition. Though this alternative would increase the number of road and skid trail miles within the project area, based on the resource analyses in the FEIS for this project, at least minimum resource values for all resources will still be met.

I want to reiterate that I will make every effort reasonably possible to implement the Proposed Action. But because of the continued increases in bark beetle mortality that is occurring in this project area each year, I believe it is absolutely essential to have all commercial treatment areas under contract by the beginning of the 1996 operating season (late June to early July depending on weather conditions). Commercial treatments are planned to be implemented during the fall of 1995 in the Brian Head Ski Resort area.

The effects of the selected alternative and mitigation, as well as the effects of all alternatives and mitigation considered in detail, are described in Chapter 4 of the FEIS. The selection of the Proposed Action or Alternative C is consistent with standards and guidelines of the Dixie National Forest Land and Resource Management Plan.

In my decision-making process, I relied upon the analysis by the interdisciplinary team of the Proposed Action and Alternatives to the Proposed Action, which includes No Action, as documented in the FEIS. Selection of the Proposed Action or Alternative C is based on the following considerations:

A. Responsiveness to the Issues
B. Responsiveness to Environmental Quality and the Purpose and Need
C. Economic Efficiency
D. Consistency with the Agency Mission

These considerations are discussed below:

A. Responsiveness to the Issues

The public involvement and scoping for the Brian Head Recovery Project has been extensive. Comments received during scoping were used to identify issues and develop alternatives that would address the issues. The following is a brief discussion of the issues identified during the scoping.

ISSUES ONE AND TWO
These issues related to the amount and magnitude of sanitation harvest defined in the Proposed Action. The issues focused on a potential reduction in scenic quality and a reduction in wildlife habitat value if sanitation harvests were employed. Sanitation harvest is the removal of live trees to reduce the susceptibility of the remaining live forests to future bark beetle infestations.

Alternative A, which proposed salvage harvest only, was developed to address this issue. However, not only were overall spruce forest losses to the bark beetle projected to be higher under Alternative A than the Proposed Action, due to the increased retention of spruce/fir forests in a moderate to high bark beetle risk, the duration and magnitude of the follow-up activities would be greater. Minimizing the duration and magni-

tude of followup activities was an important element to the recreation community interests. Essentially, completing operations as quickly as possible will eliminate one of the key disturbance factors to recreation use in the area.

Based on the need for this project detailed in Chapter 1 of the FEIS, specifically to reduce the remaining bark beetle risk, I believe changing spruce/fir forest attributes (structure, stocking, average size class, and density) through sanitation harvest is imperative. Sanitation treatments will help protect the treated areas from any additional large scale losses. This is especially true when you consider the adjacency of other bark beetle populations to the Brian Head Recovery Project that would not be removed due to other resource or legislative factors, including Cedar Breaks National Monument, the Ashdown Gorge Wilderness area, and some private lands. Both the Proposed Action and Alternative C would accomplish this important risk reduction element.

Also, by reducing overall forest risk to future bark beetle infestations through sanitation treatments in the project area, the duration and magnitude of follow-up treatments will be reduced. Reducing the amount and magnitude of additional entries will help reduce conflicts to recreationists over time.
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The Proposed Action or Alternative C, both of which specify sanitation harvest, do not completely resolve the issues surrounding sanitation treatments. However, I believe the implementation of specified treatment or mitigation measures, such as the use of preventative insecticides in high valued recreation areas(the proposed Bear Flat campground area and Brian Head Ski Resort area),salvage only treatments along some recreation trails, and wildlife habitat protection measures, move toward attaining acceptable outcomes for these actions relative to these issues.

ISSUES THREE AND FOUR
Issues 3 and 4 relate to the logging methods employed and the subsequent transportation methods developed, and how it relates to the Recreation Opportunity Spectrum. Issue 3 focused on the transportation system developed for the project and how it would conflict with the recreation opportunities in the area. Issue 4 focused on noise and areas closed to recreation use, for safety purposes, and how they would degrade the quality of the recreation experience within the project area. Both issues 3 and 4 focus on the effects to visuals and recreation resources.

Mitigation was developed to reduce the impacts from noise and area closures to recreationists, including: restricting logging activities during periods of high use on weekends and scheduled events and limiting the number of logging trucks travelling through the Town of Brian Head during the month.

The No Action alternative is the only alternative that would fully address the issue of additional noise and area closure. The No Action alternative would not decrease the potential continued loss of spruce within the project area, nor would it reduce the future risk of loss by the spruce bark beetle. The Purpose and Need described for the project area would not be met with the No Action alternative.

As stated previously, there will be impacts to recreation from action alternatives. I believe the Proposed Action or Alternative C, with the mitigation described, would best meet the purpose and need for the Brian Head Recovery Project while minimizing negative effects to the recreation community.

ISSUE FIVE
Issue 5 addresses the economics and the potential availability of helicopter logging within the project area. Alternative C was developed to address this issue. Alternative C uses a combination of tractor and cable yarding to remove the logs and eliminates treatment on those acres where helicopter yarding was the only reasonable yarding option. High yarding cost due to high elevation, combined with lower value of Englemann spruce decrease the likelihood of companies purchasing timber sales that require helicopter logging. Th Proposed Action requires helicopter logging only in those areas where resource concerns could be best me by this method and still be economically viable to implement.

B. Responsiveness to Environmental Quality and the Purpose and Need

The purpose of the Proposed Action, as stated in Chapter 1 of the FEIS, on pages 3-5, is ..."to initiate actions that would reduce the susceptibility of the project area, and risk to adjacent areas, to bark beetle infestations, and to initiate actions that would bring the project area toward the desired future condition". The desired future condition for forest types, as defined in the "Management Recommendations for the Northern Goshawk in the Southwest United States"(by Reynolds et al., 1992), has been selected as the landscape patterns desired to achieve our multiple resource use objectives as defined for the Dixie National Forest(1986). Needs identified for the project area include reducing current losses and reducing the future risk from spruce bark beetle; maintain visual and recreation values; rehabilitate areas impacted by the bark beetle; recover wood products that would otherwise be lost; and reduce wildfire risk. I believe the the Proposed Action would best meet the purpose and needs described.

Chapter 3, the Affected Environment section of the FEIS describes resources within the Brian Head Recovery Project area. Spruce beetle populations have increased from 1988 to the present and are expected to increase in the near future. Winter recreation has always been important since development of the Brian Head Ski Resort and summer recreation, particularly mountain biking, is rapidly increasing. Forested stands within the project area are important to a variety of wildlife species. The Town of Brian Head is important to the tax base of Iron County, Utah.

Chapter 4, the Environmental Consequence section of the FEIS describes the direct, indirect and cumulative effects to resources by alternative, which includes No Action. I believe the Proposed Action best addresses the multitude of resource needs and is best suited to meeting the desired future condition for the project area. The Proposed Action, which treats 878 acres, would salvage the most beetle infested spruce and reduce the risk on those same acres. The Proposed action, in combination with the mitigation described in Chapter 2 of the FEIS, would reduce the effects of harvest to recreation. The Proposed Action was designed to maintain Northern goshawk habitat by maximizing retention of tree cover of the larger tree classes and increasing species diversity while reducing densities to reduce the risk from spruce bark beetles on 878 acres.

I believe implementation of the Proposed Action will provide the greatest opportunity, in the long term, to maintain recreation and scenic qualities within this project area. Areas impacted by spruce bark beetles will be regenerated by both artificial and natural regeneration. It is estimated 95 acres would require artificial planting and the remaining area would be naturally regenerated.

Recovery of wood products that would otherwise be lost is an important element of the Proposed Action. Under the Proposed Action 4.1 million board feet of Englemann spruce will be harvested, but not at the expense of other resource values such as those related to recreation and wildlife.

Removal of the dead and dying spruce trees through salvage harvest will reduce short and long term fuel loads over the treated areas and reduce the risk of wildfire in this critical wildland-urban interface area.

The Proposed Action, Alternative A, Alternative B and Alternative C are very similar when the effects are analyzed. The issues that drove the development of these alternatives do not substantially alter the effects. For instance, the difference between the Proposed Action and Alternative A is the harvest method. The Proposed action uses salvage and sanitation and removes 4.1 MMBF while Alternative A uses salvage only harvest and removes 3.7 MMBF of timber. The difference between the Proposed Action and Alternative B is the yarding methods used to remove the timber. The Proposed Action uses a combination of tractor and helicopter yarding while Alternative B uses helicopter logging only to remove the timber.

Following my review of the resource discussions in the FEIS, especially those highlighted in Chapter 4 concerning "Relationships Between Short Term Uses and Long Term Productivity", "Irreversible or Irretrievable Commitment of Resources", and "Probable Adverse Environmental Effects that Cannot be Avoided", I believe the Proposed Action will best balance the resource needs in the long and short terms.

Environmental quality does not differ significantly between the Proposed Action, Alternative A, Alternative B and Alternative C. The Proposed Action, meets the desired future condition and purpose and need for the project area and addresses the issues identified. Alternative C would also provide progression toward the desired future condition and best meet purpose and need if a helicopter is not available for yarding under the Proposed Action.

C. Economic Efficiency

The costs and benefits of implementing a project of this nature are important factors to consider when selecting an alternative. Costs for a project similar to this are generally determined by the amount of road construction required, the yarding systems used to remove logs, the amount of essential reforestation, and the amount of cleanup needed, all relative to the amount of volume captured. Benefits calculated in the economic analysis relate to the timber outputs produced. It is difficult to quantify costs and benefits associated with non-commodity resources for reasons discussed in the social and economic discussions in the FEIS for this project.

I believe the Proposed Action best responds to to the economic and resource needs for this project. The Proposed Action provides the highest number of jobs sustained (200) and is second in terms of present net value generating $220,900(4% interest rate).

In comparing the Proposed Action to other action alternative, Alternative C has the highest present net value(PNV)($400,369), due to the elimination of helicopter logging. Alternative B has the lowest PNV (negative $238,201), due to the fact it is a helicopter logging only alternative. Changes in the Proposed Action and Alternative C treating the Brian Head Ski Resort with ground based equipment rather than helicopter yarding does not appreciably change the PNV or jobs created. Alternative C continues to have the highest PNV and the Proposed Action still creates the most jobs. Increasing the acres of spraying from 35 to 95 acres would also not appreciably change the PNV.

There are some important cost associated with this project that must be collected in order to protect and rehabilitate certain identified resource needs. Extensive slash cleanup is needed to reduce the visual impacts adjacent to roads and trails. Reforestation is needed in areas that are not adequately stocked following the harvest. Spraying insecticides in the Upper Bear Flat and Brian Head Ski Resort areas will reduce the impacts of spruce bark beetles to the residual trees for several years. The Proposed Action generates the necessary revenues to complete this work while meeting other resource needs for the Brian Head Recovery Project.

D. Consistency with the Agency Mission

The mission of the USDA Forest Service is to manage lands for a variety of resource needs while providing for healthy ecosystems. Ecosystem management is an ecological approach to natural resource management. Management of ecosystems encompasses blending the biological and physical needs of that particular ecosystem, with the social and economic needs of the humans who use the ecosystem. I believe the Proposed Action provides the greatest benefits to the Brian Head Recovery Project area by providing for the diverse needs of this area. The Proposed Action will maintain forest resilience by reducing the present and future impacts of the spruce bark beetle to the spruce/fir forests. A wide variety of needs will be met for both wildlife species that rely on this habitat and the humans who use this area.

RATIONALE FOR FOREST PLAN AMENDMENT

My decision for proceeding with the implementation of the Forest Plan amendment is based on information that indicates the yellow breasted chat is not a good indicator for riparian conditions on the Dixie National Forest. Forest wide field surveys over the past 5 years indicate yellow breasted have restricted distribution across the forest. The chat has only been found in the low elevation part of two small stream sections in the south-eastern corner of the Escalante Ranger District. There are a wide variety of riparian habitat conditions

on the Dixie National Forest. The desired riparian habitat condition would provide detailed description for the variety of riparian habitat conditions found on the Dixie National Forest.

IV. PUBLIC INVOLVEMENT

A. Public Participation

Public involvement for the Brian Head Recovery Project was designed to solicit the concerns and comments of all interested parties. The program was implemented at two levels: A "programmatic" program dealing with the entire issue of the bark beetle infestation on the Cedar City Ranger District, and project-specific actions designed to meet the need for public involvement on this project proposal. Public involvement for the Brian Head Recovery Project was developed further to gather information from individuals within the Town of Brian Head prior to scoping, to aid in development of the Proposed Action. Public Involvement for this project included scoping letters, public meetings, field tours, news releases and phone contacts. A complete record of all public involvement is located in the Project File.

I appreciate the time and effort all interested parties spent participating in the analysis process. I especially appreciated those who took time out of there schedules to participate in the public meetings and field tours. I believe the information participants provided during these personal contacts with specialists was key to our understanding your feelings about this project. I hope the information provided by the specialists gave everyone a better understanding of the purpose and need for this project.

B. Issues Identified

The scoping process was initiated March 23, 1994. All scoping responses are included in the planning record. The ID Team analyzed and categorized the scoping responses into the following major issues which are summarized below:

Issues One and Two - Sanitation Harvest and the effects to scenic, recreational and wildlife values.

Issue Three - Transportation system development would not meet the scenic quality objective and naturally appearing environment for recreational opportunities experienced in the area.

Issue Four - Noise and areas closed to recreational use during harvest activities and the disruption to historical use patterns in the project area and surrounding areas.

Issue Five - The economics and potential availability of helicopter logging.

C. Public Comments on the DEIS

On April 12, 1995 the Brian Head Draft Environmental Impact Statement (DEIS), was sent to members of the public who had commented on the project, and elected officials. Only 12 written comments were received in response to the draft EIS. Responses were classified into 14 categories which include insect and disease, vegetation, wildlife, fisheries, soils and hydrology, recreation and visuals, social and economic, cumulative effects and a category for general comments. All comments were addressed individually. The public comments received and Forest Service response to the comments are documented in Chapter 9 of the FEIS for the Brian Head Recovery Project.

V. ALTERNATIVES CONSIDERED

The analysis for the Brian Head Recovery Project considered five alternatives in detail. The effects of these alternatives are discussed in detail in Chapter 4 of the FEIS. An additional 10 alternatives were considered by the ID Team, but were not studied in detail. The rational for the elimination of the alternatives not considered

is discussed in Chapter 2 of the FEIS. The alternatives not studied in detail and the five alternatives described in detail are fully discussed in Chapter 2 of the FEIS. The following is a brief discussion.

A. Alternatives Eliminated from Detailed Study

- Use of prescribed burning to reduce beetle populations and associated risk factors.
- Use of ground based logging systems.
- Using Pesticides and /or trap tree methods to control insects, only.
- Pheremone baiting of trap trees with harvesting and logging of the infested trap trees only.
- Sterilization of spruce bark beetle as a biological control.
- Treating all overstory vegetation in the project area.
- Leaving untreated buffer zones in all areas adjacent to trails, live streams, and other resource areas of interest to reduce the impacts to the visual resources.
- Restricting opening size.
- Heavier sanitation /salvage harvest(to 100 sq. ft. of basal area or less).
- Salvage only harvest with no scheduled follow-up treatments.

B. Alternatives Considered in Detail, But Not Selected

Alternatives considered in detail were formulated from the issues identified during the scoping process, comments received during the DEIS review period, the project objectives and the goals, and objectives and desired future conditions of the DNF LRMP.

- No Action - The No Action alternative would not commercially remove or destroy any beetle infested trees in the Brian Head Recovery Project area. No other treatments designed to suppress or reduce beetle activity, such as pheromone baiting and trap trees, would be used. There would be no management activity to reduce fuel loading. The transportation system would remain the same and existing roads would remain in place. The No Action alternative does not meet the purpose and need as defined for this project.
- Alternative A - Alternative A was designed to address Issue #1, i.e., the amount and magnitude of harvesting. This alternative reduces the harvest level by only removing currently infested by bark beetles and dead trees. It takes no action to reduce future tree mortality on the project area by reducing the density of green trees. Alternative A does not meet the purpose and need defined for this project by not reducing the future risk from spruce bark beetle.
- Alternative B - Alternative B was developed to address Issue #3, i.e. road construction skid trail and cable corridors within the project area. There would be no new road construction with this alternative. Existing roads would be the only roads used for this alternative. Alternative B is prohibitively expensive to implement due to the high cost of helicopter yarding all treatment acres. This alternative might not be implementable due to the unavailability of helicopters.

VI. FINDINGS REQUIRED BY OTHER LAWS AND REGULATIONS

After consideration of the discussion of environmental consequences (FEIS, Chapter IV), I have determined that the Proposed Action, as well as Alternative C, if needed, are consistent with other applicable laws and regulations, as outlined in the FEIS. Detailed discussions of laws and regulations are provided in the FEIS in Chapter 4 on pages 4-130 to 4-138.

VII. ENVIRONMENTALLY PREFERRED ALTERNATIVE

The environmentally preferred alternative best fulfills the following six goals as stated in the National Environmental Policy Act (Title 1, Section 151 (b)):

1. Fulfills the responsibilities of each generation as trustee of the environment for succeeding generations.

2. Assures all Americans safe, healthful, productive and aesthetically and culturally pleasing surroundings.

3. Attains the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.

4. Preserves important historic, cultural and natural aspects of our national heritage, and maintains wherever possible, an environment which supports diversity and a wide variety of individual choices.

5. Achieves a balance between the human population and resource uses which permits high standards of living and a wide sharing of life's amenities.

6. Enhances the quality of renewable resources and approaches the maximum attainable recycling of depleted resources.

All action alternatives fulfill the six goals as stated above, at least to a minimum degree. However, the Proposed Action, followed by Alternative C, provides the best overall balance for the fulfillment of these goals.

VII. IMPLEMENTATION AND ADMINISTRATIVE REVIEW

The decisions made in this Record of Decision fall under two categories of law:
First, the decision to implement the Proposed Action or Alternative C are NOT subject to administrative review, and the following law applies:

> This decision is subject to judicial review only in the United States District Court for the district in which the affected Federal lands are located. As required under Section 2001(f)(1) of Public Law 104-19, any challenge to this salvage sale project must be filed in the district court within 15 calendar days after advertisement of the sale.
>
> Implementation may begin no sooner than September 8, 1995.

Second, the decision to amend the Forest Plan by replacing the yellow breasted chat with a desired riparian habitat condition is subject to administrative review as follows:

This decision is subject to appeal pursuant to Forest Service regulations at 36 CFR 215.7. A written notice of appeal must be postmarked or received by the Appeal Deciding Officer, Regional Forester Dale N. Bosworth, USDA Forest Service, 324 25th Street, Ogden, UT 84401, by October 23, 1995, which is within 45 days after the date this notice is published in *The Daily Spectrum*, St. George, UT. Appeals must meet the content requirements of 36 CFR 215.14.

For additional information concerning administrative and judicial review, see Attachment I included with this Record of Decision.

For further information on this project, contact Ronald S. Wilson, District Ranger, Cedar City Ranger District, 82 North, 100 East, P.O. Box 627, Cedar City, UT 84720, or phone (801) 865-3200.

_____ Date _____

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ATTACHMENT I

RELATIONSHIP OF THE BRIAN HEAD RECOVERY PROJECT TO ADMINISTRATIVE AND JUDICIAL REVIEW

The following information is provided to inform interested parties of the changes in administrative and judicial review procedures in relation to the Brian Head Recovery Project.

EMERGENCY SALVAGE TIMBER SALE PROGRAM AUTHORITY - This environmental impact statement has been prepared pursuant to the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) before the date of the enactment of the Emergency Salvage Timber Sale Program (P.L 104-19). Likewise, a Biological Evaluation has been completed for the proposed project prior to enactment of P.L. 104-19. Therefore, in accordance with Sec. 2001 (c) (1) (C) (USE OF EXISTING MATERIALS) of the Emergency Salvage Timber Sale Program, the Secretary is using this existing material applicable to the Federal lands covered by the proposed salvage sale in lieu of preparing new documents under Sec. 2001 (c) (1) (A). This is consistent with the intent of the Act in Sec. 2001 (b) (3) which states "SALES IN PREPARATION -- Any salvage timber sale in preparation on the date of the enactment of this Act shall be subject to the provisions of this section". This project is being carried out under authority of the Emergency Salvage Timber Sale Program (P.L. 104-19).

ADDITIONAL PUBLIC REVIEW NOT NECESSARY - Because the Brian Head Draft Environmental Impact Satement was reviewed by the public for a 45 day period, and comments received have been included in the Final Environmental Impact Statement, the document and decision will not require additional public review as described in Paragraph 6 of the Memorandum of Agreement on Timber Salvage Activities Under Public Law 104-19, between the US Department of Agriculture, Department of the Interior, Department of Commerce, and the Environmental Protection Agency.

NO ADMINISTRATIVE REVIEW FOR SALVAGE SALES - The purpose of the Emergency Salvage Timber Sale Program is to the maximum extent feasible achieve a salvage timber sale level which reduces the backlogged volume of salvage timber. Under the expedited procedures provided by the Program, salvage timber sales and any decision of the Secretary concerned in connection with such sales, shall not be subject to Administrative Review. This means Appeal procedures under 36 CFR 215 (Administrative Appeal Regulations) do not apply to salvage timber sales made under Emergency Salvage Timber Sale Program authority. Therefore, the decision to implement salvage harvest in the Brian Head Recovery Project may not be appealed under administrative procedures.

ADMINISTRATION REVIEW FOR FOREST PLAN AMENDMENT - The Environmental Impact Statement and the Record of Decision for this project includes a proposal to Amend the Dixie National Forest Land and Resource Plan (Forest Plan) by eliminating the Yellow Breasted Chat as a management indicator species (MIS), and replacing it with a description of habitat conditions for riparian areas. The decision which deals with Forest Plan amendment may be appealed under 36 CFR 215 Administrative Appeal Regulations.

EFFECT OF OTHER LAWS - The documents and procedures required by Section 2001 (i) of the Emergency Salvage Timber Sale Program law for the preparation, advertisement, offering, awarding, and operation of any salvage timber sale shall be deemed to satisfy the requirements of the following applicable Federal laws (and regulations implementing such laws):

(1) The Forest and Rangeland Renewable Resources Planning Act of 1974 (16 USC 1600 et seq.).

(2) The Federal Land Policy and Management Act of 1976 (43 usc 1701 et seq.).
(3) The National Environmental Policy Act of 1969 (42 USC 4321 et seq.).
(4) The Endangered Species Act of 1973 (16 USC 1531 et seq.).
(5) The National Forest Management Act of 1976 (16 USC 472a et.seq.).
(6) The Multiple-Use Sustained-Yield Act of 1960 (16 USC 528 et. seq.).

EXPEDITED JUDICIAL REVIEW - The decision for this project is subject to judicial review only in the United States district court for the district in which the affected Federal lands are located. As required under Section 2001 (f)(1) of Public Law 104-19, any challenge to this salvage sale project must be filed in the district court within 15 days after advertisement of the salvage sale. The Secretary shall take no action to award a challenged sale for 45 days after the date of the filing of a challenge to the salvage sale. No restraining order, preliminary injunction, or injunction pending appeal shall be issued by any court of the United States with respect to any decision to prepare, advertise, offer, award or operate a salvage timber sale. Courts shall have authority to enjoin permanently, order modification of, or void an individual salvage timber sale if it is determined such sale was arbitrary and capricious or otherwise not in accordance with applicable law (other than those laws specified under "Effect of Other laws" above). The Court shall render its final decision relative to any challenge within 45 days from the date such challenge is brought, unless the court determines a longer time is needed to satisfy requirements of the United States Constitution.

CHAPTER 8

PROPOSED FOREST PLAN AMENDMENT

PROPOSED FOREST PLAN AMENDMENT

A Forest Plan Amendment is proposed in all action alternatives. This amendment removes the yellow breasted chat as a Management Indicator Species and replaces it with the macroinvertebrate biotic condition index(BCI) and the desired riparian habitat condition. Due to the absence of the yellow breasted chat on the Dixie National Forest, these would be better indicators of riparian ecosystem health and population viability of riparian associated animal species. The detailed description of the changes to the DNF Forest Plan is located in Chapter 8, Proposed Forest Plan Amendment.

The following pages specify pages and changes for the DNF Forest Plan. The changes are in **bold print.** These pages would replace those in the Forest Plan. The pages to be replaced in the Forest Plan include: II-14, IV-33, IV-41-42 and V-5.

TABLE II-11
PROJECTED DEMAND FOR WILDERNESS
AND BACK COUNTRY RECREATION

YEAR	MRVD
1986-1990	8.0
1991-2000	10.3
2001-2010	17.6
2011-2020	28.7
2021-2030	46.8

Based on the above calculations, the supply of wilderness will not meet the demand during the foreseeable future. However, the calculations are based on past use of primitive areas on the forest as projected to the year 2030. A majority of the projected use will likely remain in unroaded back country areas of the forest.

3. FISH AND WILDLIFE

More than 350 species of wildlife and fish inhabit the Dixie National Forest for all or portion of their life cycle. Consumptive and non-consumptive uses of many of these species are an important part of recreation on the Dixie National Forest.

(Correction - The following sentence about primitive areas was misplaced here and is redundant to the same sentence above.)~~Primitive areas on the Forest as projected to the year 2030 a majority of the projected use will likely remain in unroaded back country areas of the Forest.~~

TABLE II-12
MANAGEMENT INDICATOR SPECIES
FOR THE
DIXIE NATIONAL FOREST

SPECIES	VEGETATION TYPE(S)
Mule Deer a/	Grass-forb, sagebrush, mountain brush pinyon-juniper, sapling-mature aspen, sapling mature conifer
Rocky Mountain Elk a/	Grass-forb, sapling-mature aspen, sapling-old growth conifer
Wild Turkey	Mountain brush, pole-mature aspen, mature-old growth conifer
Goshawk	Riparian tree, mature aspen, mature-old growth conifer
Common Flicker	Mature aspen, mature conifer
~~Yellowbreasted Chat~~	~~Riparian shrub tree~~
Macroinvertebrate/riparian vegetation	All riparian vegetation

B. MA[illegible]RESCRIPTION MAN[illegible] ACTIVITIES	GENERAL DIRECTION	STANDARDS AND GUIDELINES
Wildlife and Fish Resource Management (C01)	1. Where present, the following species are management indicator species: -Deer, -Elk, and -All Federally-listed endangered or threatened plant and animal species that might be affected by management activities. 2. In addition to the above, use indicator species and/or habitat conditions that represent the following categories: A. Riparian and/or wetland habitat (macroinvertebrate biotic condition index [BCI] is greater than or equal to 70 and a healthy sustainable riparian ecosystem). Within the riparian ecosystem, all ecological stages should be present to achieve sustainability. Vegetative cover should be dominated by native species (herbaceous and woody) which are capable of reproducing and maintaining good vigor. Streambank cover should be 90% or greater of potential. Natural dynamic processes should be allowed to function throughout the system. B. Species dependent on either climax plant communities or one seral stage of a plant community or communities (goshawk, wild turkey). C. Tree cavity-dependent species (common flicker). D. Game fish (brook, brown, rainbow, and cutthroat trout). E. Species which have particular scientific, local or national interest, and species needing special management to prevent Federal listing as threatened or endangered (Bonneville cutthroat, mule deer, elk). 3. Manage habitat for viable populations of all existing vertebrate wildlife species. 4. Manage riparian ecosystems to provide adequate habitat to sustain viable populations of riparian associated species. 5. Allow for re-establishment of deer herds to the population levels outlined in the Utah Deer Herd Unit Management Plans. 6. Cooperate in the establishment of elk, pronghorn, bighorn sheep, or other suitable species, and threatened and endangered species on sites that can supply the habitat needs of the species and the population levels and distribution agreed to with the State and other concerned parties only where conflict with established uses can be established.	
	7. Manage waters capable of supporting self-sustaining trout populations to provide for those populations.	Where natural geologic and biologic conditions will allow, maintain the following stream habitat conditions: A. Maintain 40% or more of overhanging grasses, forbs, sedges, and shrubs along banks of streams. B. Maintain 50% or more of total stream bank length in stable condition. C. No more than 25% of stream substrate should be covered by inorganic sediment less than 3.2mm in size (se R-4 GAWS Aquatic Habitat Surveys Handbook).

*** PROPOSED FOREST PLAN AMENDMENT ***

B. MANAGEMENT PRESCRIPTION MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS AND GUIDELINES
	8. Make Christmas trees available in areas where other resource objectives can be accomplished through commercial or personal use Christmas tree sales.	
	9. Examine modifications to silvicultural techniques and harvest practices in the spruce-fir and mixed conifer timber types to increase water yield. Implement changes when not inconsistent with other multiple use management objectives.	
Reforestation (E04)	1. Establish a satisfactory stand on cutover areas, emphasizing natural regeneration within five years, where feasible, after final harvest except: A. For permanent openings that serve specific management objectives; B. When other resource objectives dictate a different period, such as spruce clearcuts where planting must occur within 3 years after harvest; C. When provided for otherwise in specific management prescriptions.	
	2. Do not apply final shelterwood removal cut until the desired number (as specified) of well-established seedlings/acre are expected to remain following overwood removal.	
	3. Where appropriate, use K-V funds for soil and watershed rehabilitation and/or wildlife habitat improvement.	
Riparian Management	1. Special protection and management will be given to land and vegetation for a minimum of 100 feet from the edges of all perennial streams, lakes, and other bodies of water, or to the outer margin of the riparian system if wider than 100 feet.	
	2. Design and implement activities in management areas which provide for healthy sustainable riparian ecosystems. A. Management activities should be planned to maintain healthy populations of macroinvertebrates using the macroinvertebrate biotic condition index (BCI) of equal to or greater than 70. Riparian systems should be dominated by native species (herbaceous and woody) which are capable of reproducing and maintaining good vigor. These systems should be represented by all ecological stages of development to sustain the system. Streambank cover should be 90% or greater of potential. In addition, natural dynamic processes should be allowed to function throughout the system. Because management of uplands influence riparian ecosystems down stream, uplands should be managed to meet general Forest Plan direction described in F04, F05, F06, and KA1.	
	3. Prescribe livestock grazing systems to achieve riparian objectives.	A. Allow a maximum of 60% use (season-long system), of desirable and intermediate species forage production to riparian areas. B. Allow a maximum of 50% use of current year's growth on browse species in riparian areas. C. Maintain ground cover of at least 70% within the riparian area.

B. MAJOR PRESCRIPTION MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS AND GUIDELINES
	4. Prescribe silvicultural systems to achieve riparian area objectives.	A. Maintain shade, bank stability and sediment standards as specified under Wildlife and Fish Resource Management, Standards and Guidelines. B. Maintain a healthy sustainable riparian ecosystem which contains all ecological stages of development necessary for sustainability. This system should be dominated by native species (herbaceous and woody) which are capable of reproducing and maintaining good vigor. Streambank cover should be 90% or greater of potential. Natural dynamic processes should be allowed to function throughout the system. Uplands management should meet general Forest Plan direction described in F04, F05, F06, and KA1.
	5. Locate and construct arterial and collector roads to maintain basic natural condition and character of riparian areas. (0087) A. Locate roads outside of riparian areas except for stream crossing where other feasible alternatives do not exist. B. Select stream crossing points to minimize bank and channel disturbance.	A. Maintain fish passage during all flow levels except peak flow events. Follow guidelines in Evans and Johnston, 1980.
Water Uses Management (F04)	1. Determine and obtain rights to instream flows needed to protect and maintain stream channel stability and capacity and for other National Forest uses.	A. Utilize methodology in draft FSH 2509.17, Chapter 30, "Procedure for Quantifying Channel Maintenance Flows".
	2. Protest water right applications of others when such uses will lower streamflows, springflows, lake levels, or groundwater tables below levels acceptable for National Forest uses and purposes. (0604)	
	3. Special use permit, easements, rights-of-way, and similar authorizations for use of NF lands shall contain conditions and stipulations to maintain instream flows necessary to fulfill all National Forest uses and purposes.	
	4. Determine and obtain rights to instream flow and conservation pools in cooperation with Utah DWR to support a yield of natural fisheries resources.	A. Determine instream flows by R4 GAWS Aquatic Habitat Surveys or other accepted methodologies.
Water Resource Improvement and Maintenance (F05 and 06)	1. Maintain needed instream flows and protect public property and resources.	
	2. Improve or maintain water quality to meet State water quality standards. However, where the natural background water pollutants cause degradation, it is not necessary to implement improvement actions. Short-term or temporary failure to meet some parameters of the State standard, such as increased sediment from road crossing construction or water resource development may be permitted in special cases.	

ACTIVITIES, EFFECTS AND RESOURCES TO BE MEASURED	MONITORING METHOD	PRECISION/ RELIABILITY	MEASUREMENT FREQUENCY	REPORTING PERIOD	VARIATION WHICH WOULD CAUSE FURTHER EVALUATION AND/OR CHANGE IN MANAGEMENT DIRECTION
2. Amount and Distribution of Human Use	Trail registration, trail counters, and trailhead counts with periodic intensive sample	M/M	Annual	Annual	Human use exceeds area capacity identified in this plan
WILDLIFE AND FISH					
Management Indicators					
a. Big game (mule deer and elk)	UDWR harvest and classification data, winter range rides, aerial recon., pellet transects	M/M	Annual	Annual	Prior to reaching optimum Forest populations, a downward population trend of 10% over 3 years. Once optimum populations are reached, a 20% total population or herd composition change over a 5-year period.
b. Wild turkey	UDWR harvest data, sighting records of reliable persons. Habitat evaluation during pre- and post-timber sale reviews and range analysis	M/M	Annual	Annual	10% total decline in population size over a 3 year period and/or loss of important habitat components; i.e., roost trees in 2 or more areas of essential habitat as designated by UDWR and FS
c. Goshawk, common flicker[illegible]	Nest survey for goshawk	M/M	Annual if population near minimum level, or every 2-5 years in project areas	Annual	10% total declining goshawk population size over a 3 year period
	Variable strip transect for goshawk, common flicker;[illegible] sighting records of reliable persons	L/M	Annual if population near minimum level, or every 2-5 years in project areas	Annual	[illegible]25% decline in flicker population size over a 5-year period
d. Trout: brook, brown rainbow, cutthroat	Gill netting, electro-shocking, creel census	M/H	Annual	Annual	20% total decline in population size over a 5-year period or a major change in size or quality of catch
e. Bonneville cutthroat	Electro-shocking, R-4 GAWS habitat survey	M/H	Annual	Annual	10% decline in population size in any one stream in any one year
Conformance with Standards and Guidelines					
a. Habitat Diversity	Vegetative composition and age class surveys, calculation of Patton Edge-Shape Index from maps & air photos	M/H	Annual in vegetative manipulation project areas	Annual	Significant variation from Standards and Guidelines specifications